

CLAIMS

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1. A spider-friendly Web page generation method comprising:
generating an instance of a main Web page having at least one link with a
dynamic address pointing to a dynamic Web page; and
converting the dynamic address into a static address that also points to the
dynamic Web page.
 2. A method as recited in claim 1 further comprising receiving a request
for an instance of the main Web page before the generating.
 3. A method as recited in claim 1 further comprising sending the
instance of the main Web page.
 4. A method as recited in claim 1 further comprising receiving a request
for access to the main Web page, the request comprising a static address pointing
to the main Web page.
 5. A method as recited in claim 1, wherein the generating comprises
forming the instance of the main Web page so that the main Web page contains
meta-tags for facilitating indexing by a Web search engine.

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1 6. A method as recited in claim 1, wherein the converting comprises:
2 parsing the dynamic address to identify and separate fields within the
3 dynamic address, wherein at least one field has a value; and
4 generating a static address incorporating the value of at least one field,
5 wherein the static address points to the dynamic Web page.

6
7 7. A computer-readable storage medium having computer-executable
8 instructions that, when executed by a computer, performs the method as recited in
9 claim 1.

10
11 8. A static to dynamic (S-to-D) Web address conversion method
12 comprising:
13 receiving a request for a dynamic Web page, the request including a static
14 address pointing to the dynamic Web page; and
15 converting the static address to a dynamic address also pointing to the
16 dynamic Web page.

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18 9. A method as recited in claim 8 further comprising providing the
19 dynamic address to a server.

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21 10. A method as recited in claim 8 further comprising invoking the
22 dynamic Web page referenced by the dynamic address.
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1 11. A method as recited in claim 8 further comprising sending the
2 dynamic Web page referenced by the dynamic address to a requester.

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4 12. A method as recited in claim 8, wherein the converting comprises:
5 parsing the static address to identify at least one value associated with a
6 field within the static address; and

7 generating a dynamic address incorporating at least one value associated
8 with a field, wherein the dynamic address points to the dynamic Web page.

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10 13. A computer-readable storage medium having computer-executable
11 instructions that, when executed by a computer, performs the method as recited in
12 claim 8.

13
14 14. A static address to dynamic address (S-to-D address) conversion
15 method comprising:

16 receiving a static address pointing to a dynamic Web page;

17 parsing the static address to identify at least one value associated with a
18 field within the static address; and

19 generating a dynamic address incorporating at least one value associated
20 with a field, wherein the dynamic address points to the dynamic Web page.

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1 15. A method as recited in claim 14, wherein the parsing identifies and
2 separates fields comprising:

3 a "hostname" for containing a value that a name of a server hosting the
4 dynamic Web page;

5 an "alias-indicator" for containing a value that identifies the static address
6 as pointing to a dynamic Web page rather than a static Web page;

7 a "path" for containing a value that a hierarchical path name of the dynamic
8 Web page; and

9 "searchvalues" for containing one or more values, wherein each value is
10 associated with a name of parameters used to invoke the dynamic Web page.

11
12 16. A method as recited in claim 15, wherein the generating forms the
13 dynamic address by incorporating values of at least the following fields:

14 the hostname;

15 the path; and

16 the searchvalues.

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18 17. A method as recited in claim 16, wherein the generating forms the
19 dynamic address by incorporating a file-parameter-separator symbol.

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21 18. A method as recited in claim 16, wherein the generating forms the
22 dynamic address by incorporating a "?" symbol.

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1 19. A method as recited in claim 15, wherein the generating forms the
2 dynamic address by incorporating, at least and in order relative to each other, the
3 following:

4 the value of the hostname;

5 the value of the path;

6 a file-parameter-separator symbol;

7 one or more values of a "searchparameters" field, wherein the
8 searchparameters contain one or more values that are names of parameters used to
9 invoke the dynamic Web page; and

10 a value for each searchvalue, wherein the value of each searchvalue is
11 associated with a name of the parameters of the searchparameters.

12
13 20. A method as recited in claim 19, wherein each value of a field is
14 separated by a field-separator symbol.

15
16 21. A method as recited in claim 19, wherein the path is followed by a
17 format-identifying extension.

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19 22. A computer-readable storage medium having computer-executable
20 instructions that, when executed by a computer, performs the method as recited in
21 claim 14.

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1 **23.** A dynamic to static (D-to-S) Web address conversion method
2 comprising:

3 receiving a dynamic address pointing to a dynamic Web page; and
4 converting the dynamic address to a static address also pointing to the
5 dynamic Web page.

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7 **24.** A computer-readable storage medium having computer-executable
8 instructions that, when executed by a computer, performs the method as recited in
9 claim 23.

10
11 **25.** A dynamic to static (D-to-S) Web address conversion method
12 comprising:

13 receiving a dynamic address pointing to a dynamic Web page;
14 parsing the dynamic address to identify and separate fields within the
15 dynamic address, wherein at least one field has a value; and
16 generating a static address incorporating the value of at least one field, the
17 static address also pointing to the dynamic Web page.

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1 26. A method as recited in claim 25, wherein the parsing identifies and
2 separates fields comprising:

3 a "hostname" for containing a value that is a name of a server hosting the
4 dynamic Web page;

5 a "path" for containing a value that a hierarchical path name of the dynamic
6 Web page;

7 "searchparameters" for containing one or more values that are names of
8 parameters used to invoke the dynamic Web page; and

9 "searchvalues" for containing one or more values, wherein each value is
10 associated with a name of a parameter in the searchparameters field.

11
12 27. A method as recited in claim 26, wherein the generating forms the
13 static address by incorporating the values of at least the following fields:

14 the hostname;

15 the path; and

16 the searchvalues.

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18 28. A method as recited in claim 27, wherein the generating forms the
19 static address by incorporating a value for an alias-indicator field identifying the
20 static address as pointing to a dynamically generated Web page.
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1 29. A method as recited in claim 28, wherein the generating forms the
2 static address by incorporating, at least and in order relative to each other, the
3 following:

4 the value of the hostname;
5 the value for an alias-indicator field;
6 the value of the path; and
7 the value of each searchvalue.

8
9 30. A method as recited in claim 29, wherein each value of a field being
10 separated by a field-separator symbol.

11
12 31. A method as recited in claim 26, wherein the generating step forms
13 the static address wherein last of the searchvalues is followed by a format-
14 identifying extension.

15
16 32. A method as recited in claim 31, wherein the format-identifying
17 extension is either ".htm" or ".html".

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19 33. A computer-readable storage medium having computer-executable
20 instructions that, when executed by a computer, performs the method as recited in
21 claim 25.

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1 34. A method for facilitating the indexing of a collection of dynamic
2 web pages, the method comprising:

3 storing a file authorizing a web spider to access a spider-friendly Web page
4 having a designated static address;

5 upon attempted access by a Web spider of the spider-friendly Web page,
6 generating an instance of the spider-friendly Web page by:

7 identifying a plurality of dynamic Web pages that are to be indexed
8 by the Web spider, each of the dynamic Web pages including at least one
9 parameter value that is used to retrieve dynamic content to be included in
10 the Web page;

11 for each of the dynamic Web pages, creating a static Web address
12 that identifies the dynamic Web page, the static address encoding a
13 parameter value used to retrieve dynamic content for the Web page;

14 assembling the static addresses corresponding to the identified
15 dynamic Web pages into an instance of the spider-friendly Web page; and

16 sending the spider-friendly Web page to the Web spider.
17

18 35. A method of providing a dynamic Web page comprising:

19 receiving a request for a dynamic Web page from a computer on a network,
20 the request including a static Web address pointing to the dynamic Web page;

21 generating an instance of the dynamic Web page such that contents of the
22 instance appears as a static Web page; and

23 sending the dynamic Web page to a the computer.
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1 36. A data structure for use with a computer having a processor and a
2 memory, the data structure encoding a static Web address that can be indexed by
3 Web spider and that points to a dynamic Web page comprising, said structure
4 comprising:

5 a first portion indicating a host name where the dynamic Web page resides;
6 a second portion encoding a path where the dynamic Web page resides; and
7 a third portion encoding at least one parameter value that may be used to
8 generate the dynamic Web page, the third portion being encoded such that a Web
9 spider will identify the static address as a valid static address.

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11 37. A method as recited in claim 36 further comprising a fourth portion
12 encoding a token recognized by a Static-to-Dynamic (S-to-D) Web address
13 converter.

14
15 38. A method as recited in claim 36, wherein the third portion encodes
16 at least one parameter associated with the one value, the parameter also may be
17 used to generate the dynamic Web page

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19 39. A data structure for use with a computer having a processor and a
20 memory, said structure comprising a static Web address pointing to a dynamic
21 Web page stored on the computer.

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1 **40.** A data structure for use with a first computer having a processor and
2 a memory, said structure comprising a static Web address pointing to a dynamic
3 Web page, wherein the dynamic Web page is stored on a second computer having
4 a processor and a memory, the first and second computers being operatively
5 coupled via a communications network.
6

7 **41.** A Web site system comprising:
8 a Web server hosting a dynamic Web site;
9 a database storing data used by the Web server to generate dynamic Web
10 pages of the dynamic Web site, the Web server being operatively coupled to the
11 Web server; and
12 a static to dynamic (S-to-D) Web address converter, the converter being
13 operatively coupled to the Web server;
14 the S-to-D Web address converter being configured to convert a static
15 address to a dynamic address pointing to a dynamic Web page.
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1 42. A Web site system comprising:
2 a Web server hosting a dynamic Web site;
3 a database storing data used by the Web server to generate dynamic Web
4 pages of the dynamic Web site, the Web server being operatively coupled to the
5 Web server; and
6 a dynamic to static (D-to-S) Web address converter, the converter being
7 operatively coupled to the Web server;
8 the D-to-S Web address converter being configured to convert a dynamic
9 address pointing to a dynamic Web page into a static address also pointing to the
10 dynamic Web page.

11
12 43. A server comprising:
13 a processor;
14 a request receiver executable on the processor to receive a request including
15 a static address of a main Web page;
16 a spider-friendly Web page generator executable on the processor to:
17 receive the static address of the main Web page from the request
18 receiver;
19 generate an instance of the main Web page having at least one link
20 with an address pointing to a dynamic Web page.

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44. A server comprising:

a processor;

a static to dynamic (S-to-D) Web address converter executable on the processor to:

convert a static address pointing to a dynamic Web page into a dynamic address that also points to the dynamic Web page.

45. A server comprising:

a processor;

a static to dynamic (S-to-D) Web address converter executable on the processor to:

parse the static address to identify at least one value associated with a field within the static address; and

generating a dynamic address incorporating at least one value associated with a field, wherein the dynamic address points to the dynamic Web page.

46. A server comprising:

a processor;

a dynamic to static (D-to-S) Web address converter executable on the processor to:

convert a dynamic address pointing to a dynamic Web page into a static address also pointing to the dynamic Web page.

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the dynamic Web page.

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1 48. A system for hosting dynamic Web sites comprising:

2 a Web server for dynamically generating an instance of a dynamic Web
3 page in response to a request; and

4 a static to dynamic (S-to-D) Web address converter;

5 the Web server being configured to send a Web address of the request to
6 the converter;

7 the converter being configured to:

8 receive the Web address of the request;

9 determine if the Web address is a static address; and

10 convert the static address to a dynamic address that also points to the
11 dynamic Web page.

12
13 49. A system recited in claim 48, the converter being further configured
14 to convert the static address to a dynamic address by:

15 parsing the static address to identify at least one value associated with a
16 field within the static address; and

17 generating a dynamic address incorporating at least one value associated
18 with a field, wherein the dynamic address points to the dynamic Web page.
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1 **50.** A system for hosting dynamic Web sites for hosting a dynamic Web
2 site comprising:

3 a Web server for dynamically generating an instance of a dynamic Web
4 page; and

5 a dynamic-to-static (D-to-S) Web address converter being configured to:

6 convert a dynamic address pointing to a dynamic Web page into a
7 static address that also points to the dynamic Web page.

8
9 **51.** The system recited in claim 50, the converter being further
10 configured to convert the dynamic address to a static address by:

11 parsing the dynamic address to identify and separate fields within the
12 dynamic address, wherein at least one field has a value; and

13 generating a static address incorporating the value of at least one field, the
14 static address also pointing to the dynamic Web page.

15
16 **52.** A computer-readable storage medium having computer-executable
17 instructions that, when executed by a computer, performs the spider-friendly Web
18 page generation method comprising:

19 generating an instance of a spider-friendly Web page having at least one
20 link with a dynamic address pointing to a dynamic Web page; and

21 converting the dynamic address into a static address that also points to the
22 dynamic Web page.

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1 53. A computer-readable storage medium having computer-executable
2 instructions that, when executed by a computer, performs the static to dynamic (S-
3 to-D) Web address conversion method comprising:

4 receiving a request for a dynamic Web page, wherein the request includes a
5 static address pointing to the dynamic Web page; and

6 converting the static address to a dynamic address that also points to the
7 dynamic Web page.

8
9 54. A computer-readable storage medium having computer-executable
10 instructions that, when executed by a computer, performs the static to dynamic (S-
11 to-D) Web address conversion method comprising:

12 receiving a static address pointing to a dynamic Web page;

13 parsing the static address to identify at least one value associated with a
14 field within the static address; and

15 generating a dynamic address incorporating at least one value associated
16 with a field, wherein the dynamic address points to the dynamic Web page.

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19 55. A computer-readable storage medium having computer-executable
20 instructions that, when executed by a computer, performs the dynamic to static (D-
21 to-S) Web address conversion method comprising:

22 receiving a dynamic address pointing to a dynamic Web page; and

23 converting the dynamic address to a static address that also to the dynamic
24 Web page

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